ISSUED

WP 05-WH1204

Revision 9

Facility Transfer Vehicle

Technical Procedure

EFFECTIVE DATE: 11/14/19

Gary Chism
APPROVED FOR USE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
8	12/05/18	• Total rewrite. • Added Attachment 2, Leak Categorization. • Removed Sections related to Facility Transfer Vehicle operations.
8-FR1	06/06/19	• Corrected equipment numbers in Section 1.1 • Added command to give FTV an executable command in Attachment 1.
9	11/14/19	Minor revision. • Added Limitation, bullet 3.

1.0 INTRODUCTION

1.1 PURPOSE

This procedure provides the required instructions for inspecting the FTV, Equipment # 41-H-020A, 41-H-020B, and 41-H-020C.

Performance of this procedure implements inspection requirements of the HWFP relative to the scope of, and as defined in, this document. Unless otherwise noted, this procedure is performed by Waste Handling personnel.

1.2 SCOPE

This procedure specifies HWFP preoperational FTV inspection requirements.

1.3 RECORDS

Records generated are handled in accordance with departmental Records Inventory and Disposition Schedules. Performance of this procedure generates the following record.

- Equipment Logbook

2.0 REFERENCES

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
40 CFR 264.15, General Inspection Requirements	✓		
Hazardous Waste Facility Permit, EPA Identification Number NM4890139088-TSDF	✓		**($)**
DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis	✓		
DOE/WIPP-07-3373, Waste Isolation Pilot Plant Technical Safety Requirements	✓		**($)**
WP 04-AD3001, Facility Mode Compliance		✓	
WP 04-AD3011, Equipment Lockout/Tagout	✓		
WP 04-AD3016, Equipment Out of Service Process		✓	
WP 05-WH1101, CH Surface Transuranic Mixed Waste Handling Area Inspections		✓	
WP 13-1, Nuclear Waste Partnership LLC Quality Assurance Program Description	✓		
WP 15-GM1002, Issues Management Processing of WIPP Forms		✓	
05-WH1204-JHA, Preoperational Checks for FTV and Utilizing a Battery on a Battery Jack	✓		

2.1 ABBREVIATIONS AND ACRONYMS

AGV	automated guided vehicle
AR	action request
CMRO	Central Monitoring Room Operator
FTV	facility transfer vehicle
HWFP	Hazardous Waste Facility Permit
LCO	Limiting Conditions for Operation
MCD	manual control device
OOS	out of service
PPE	personal protective equipment
RWP	Radiological Work Permit
SAC	Specific Administrative Control
SEC	Site Environmental Compliance
TSR	Technical Safety Requirements
WIPP	Waste Isolation Pilot Plant
WHE	Waste Handling Engineer
WHT	Waste Handling Technician

3.0 PRECAUTIONS AND LIMITATIONS

3.1 PRECAUTIONS

- Flammable/explosive hazards exist during forklift operations. A fire extinguisher is to be on board forklift.
- Radiological hazards exist during operations in a Radiological area. Personnel are to read and sign the RWP and obey postings.
- Electrical hazards exist during electrical maintenance work. Personnel are to wear proper PPE and use the two-person rule.
- Eye, foot, head, and hand hazards exist during general operations. Personnel are to wear leather (mechanics) gloves and safety/hard toed shoes.
- Moving/falling objects hazards exist during general operations. Personnel are to use a designated spotter.
- Pinch point hazards exist during general operations and inspections. Personnel are to wear leather (mechanics) gloves and maintain situational awareness of placement of extremities.

- Slips/trips hazards exist during general operations and inspections. Personnel are to maintain good housekeeping.
- Vehicle traffic hazards exist during general operations. Personnel are to travel on surfaces suitable for vehicle travel.
- Lack of ventilation hazards exist when charging batteries. Personnel are to ensure battery exhaust system is operable.

3.2 LIMITATIONS

- Preoperational checks are required prior to first operation of FTV for the following: **[HWFP Table E-1]**
  - Mechanical operability
  - Deterioration
  - Path clear of obstacles
  - Guards in proper place
- When charging the FTV during Waste Handling and Waste Storage Mode, the Battery Exhaust System shall be operable when the Battery Exhaust System exhaust fans are in service. **[LCO 3.2.5]**
- Prior to charging batteries in the TRUPACT Maintenance Facility, verify HVAC system is operable.

4.0 PREREQUISITE ACTIONS

4.1 **REVIEW** Equipment Logbook for outstanding deficiencies and ARs.

5.0 PERFORMANCE

5.1 PREOPERATIONAL CHECKS

HWFP

5.1.1 **($) COMPLETE** Attachment 1, FTV Preoperational Checks. **[HWFP Table E-1]**

5.1.2 **NOTIFY** WHE of operational status and deficiencies discovered and status of each

[A] **IF** deficiencies are corrected when discovered, **THEN CHECK** SAT box on Attachment 1.

[B] **IF** deficiencies cannot be corrected when discovered, **THEN INITIATE** AR, and **CHECK** UNSAT box on Attachment 1.

5.1.3 **RECORD** the following information in Equipment Logbook:

- Deficiencies found
- Procedure number
- Equipment number
- Hour meter reading
- Check SAT or problems noted
- AR(s), if newly initiated or outstanding
- Date, time, and signature to document performance of preoperational check

5.1.4 **IF** going into CH Waste Handling Mode in Room 108, **THEN COMPLETE** WP 05-WH1101, CH Surface Transuranic Mixed Waste Handling Area Inspections, Attachment 5, Surface Room 108 TRU Mixed Waste Handling Preoperational Area Inspection and Attachment 6, TP-III Preoperational Waste Handling Mode Checklist.

5.1.5 **IF** a HWFP required inspection becomes delinquent or failed, **THEN PERFORM** the following:

[A] Immediately **NOTIFY** on-call SEC Representative and CMRO of delinquent or failed inspection.

[B] **RESCHEDULE** and **COMPLETE** required inspection.

[C] **DOCUMENT** the following,and **SUBMIT** to PermitInspections@wipp.ws within five working days:

- Inspection document number
- Description of facility, equipment involved
- Schedule for inspection
- Reason(s) why inspection was NOT performed or failed
- Compensatory measures taken to offset negative impacts from NOT performing the inspection or equipment NOT providing its intended function
- Actions to prevent further delinquencies

[D] WHE, **GO TO** WP 15-GM1002, Issues Management Processing of WIPP Forms, and **ENSURE** a WIPP form is generated.

HWFP ($) Attachment 1 – FTV Preoperational Checks [HWFP Table E-1]

NOTE

Deficiencies corrected when discovered are considered satisfactory.

		INSPECTION	CRITERIA	SAT	NA	UNSAT
	1	General Condition Checks FTV	**NO** deterioration/damage, which includes visible cracks, erosion, salt build-up, corrosion, malfunctions, and structural deterioration	☐	☐	☐
			NO loose parts	☐	☐	☐
			NO oil leaks, if leak is identified, refer to Attachment 2, Leak Categorization	☐	☐	☐
			NO grease	☐	☐	☐
			NO trash	☐	☐	☐
			ENSURE all guards are in proper place	☐	☐	☐
			ENSURE laser targets are **NOT** blocked	☐	☐	☐
			ENSURE path clear of obstacles	☐	☐	☐
	2	Battery	**ENSURE** battery is connected	☐	☐	☐
			ENSURE battery disconnect is **NOT** engaged	☐	☐	☐
TSR			**($) IF** FTV is going to be placed on battery charger in Room 108 or the CH Bay, **THEN ENSURE** WHB Battery Exhaust System is operable **[LCO 3.2.5]**	☐	☐	☐
	3	Computer	**ENSURE** C-Stop button is **NOT** engaged	☐	☐	☐
			ENSURE NT8000 is started on main computer	☐	☐	☐
			ENSURE C-WAY8 is started on main computer	☐	☐	☐
			ENSURE FTV is inserted into system	☐	☐	☐
			SEND AGV to a point	☐	☐	☐
			SELECT FTV	☐	☐	☐
			GIVE FTV an executable command*	☐	☐	☐
			CLICK Start	☐	☐	☐
			TEST E-Stop buttons by engaging each one. **PRESS** reset button after each E-Stop button is tested	☐	☐	☐
	4	Bumpers/Bars	**SQUEEZE** dead man switch	☐	☐	☐
			ENSURE Sick Sensors are operational	☐	☐	☐

Attachment 1 – FTV Preoperational Checks [HWFP Table E-1]

	INSPECTION	CRITERIA	SAT	NA	UNSAT
5	MCD	**ENSURE** MCD is plugged in	☐	☐	☐
		ENSURE MCD is in manual mode and:	☐	☐	☐
		PLACE directional control in desired direction (FW/BW)	☐	☐	☐
		PRESS speed control in desired direction	☐	☐	☐
		Using steering knob, **ENSURE** steering operates properly	☐	☐	☐
		Using LOAD 1, **ENSURE** lift table moves up and down	☐	☐	☐
		ENSURE FTV is inserted into system	☐	☐	☐
		UNPLUG MCD controller	☐	☐	☐
		SQUEEZE dead man switch	☐	☐	☐
		RELEASE dead man switch when FTV returns to charger	☐	☐	☐
*If automatic operations are not SAT, FTV may be operated in manual mode.					

Attachment 2 – Leak Categorization

	TYPE 0	TYPE 1	TYPE 2	TYPE 3	TYPE 4
Indications:	No indications of moisture–dry	Dampness around hoses or engine compartments, including oil sheen	Dripping from a hose	Spraying from a hose or oil running down firewall, etc.	Ruptured hose (e.g., oil line, fuel line)
Status	**Operational**		**DO NOT OPERATE**		
Required Actions:	None	**RECORD** leak Type 1 and the source of the leak in equipment specific Logbook	[A] **TAG** equipment OOS with an OOS Tag per WP 04-AD3016, Equipment Out of Service Process [B] **SUBMIT** AR for repairs [C] **RECORD** leak type and AR number in equipment specific Logbook [D] **WHEN** repairs and cleanup are completed, the equipment can be put back into service		